

## MODULE CON1130: SOLID STOCK CONSTRUCTION

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| <b>Level:</b>              | Introductory   |
| <b>Theme:</b>              | Manufacturing Systems (Processes and Applications)   |
| <b>Prerequisite:</b>       | CON1010 Basic Tools & Materials  |
| <b>Module Description:</b> | Students develop basic hand and power tool skills to build a product made from solid wood. |

**Module Parameters:** Access to a materials work centre complete with basic hand and power tools, and to instruction from an individual with specialized training in the use of power tools.

**Supporting Module:** CON1120 Project Management

### Curriculum and Assessment Standards

| Module Learner Expectations  | Assessment Criteria and Conditions  | Suggested Emphasis |
|--|---|--------------------|
| <p><i>The student will:</i></p> <ul style="list-style-type: none"> <li>identify and describe the physical characteristics of a variety of hard and soft woods</li> <li>apply basic drawing and transfer skills to prepare a pattern or template</li> <li>construct a wooden product, using basic joinery techniques</li> </ul> | <p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> <li>the accurate identification and description of four solid woods used to construct wooden products.</li> </ul> <p><i>Assessment Tool</i><br/><i>Response Assessment: Wood Characteristics, CON1130-1</i></p> <p><i>Standard</i><br/><i>Response rating of 1</i></p>   | 15                 |
|  | <ul style="list-style-type: none"> <li>application of the principles of proportion and transfer skills to produce a pattern or template from a scale drawing.</li> </ul> <p><i>Standard</i><br/><i>The template is to be within <math>\pm 1</math> mm of the original plan or object</i><br/><i>Performance rating of 1 for each applicable task</i></p>  | 15                 |
|  | <ul style="list-style-type: none"> <li>demonstration of basic joinery skills to safely construct a product from solid stock.</li> </ul> <p><i>Assessment Tool</i><br/><i>Project Assessment: Building with Solid Stock, CON1130-2</i><br/><i>Illustrative Example: Cutting Board, CON1130-3</i></p> <p><i>Standard</i><br/><i>The product should be constructed according to the prepared template, working drawing and event sequence. Joints are to be tight fitting, surfaces should be free of marks, gouges, burns and voids</i><br/><i>Performance rating of 1 for each applicable task</i></p> | 70                 |

**MODULE CON1130: SOLID STOCK CONSTRUCTION** (continued)

| Module Learner Expectations   | Assessment Criteria and Conditions   | Suggested Emphasis           |
|---|--|------------------------------|
| <p><i>The student will:</i></p> <ul style="list-style-type: none"> <li>demonstrate basic competencies.</li> </ul> | <p><i>Assessment of student achievement should be based on:</i></p> <ul style="list-style-type: none"> <li>observations of individual effort and interpersonal interaction during the learning process.</li> </ul> <p><i>Assessment Tool</i><br/> <i>Basic Competencies Reference Guide and any assessment tools noted above</i></p> | <p>Integrated throughout</p> |

| Concept   | Specific Learner Expectations  | Notes   |
|---|--|---|
| <p>Orientation</p> <ul style="list-style-type: none"> <li>Solid Stock</li> <li>Built-up Stock</li> <li>Tool Safety</li> </ul> | <p><i>The student should:</i></p> <ul style="list-style-type: none"> <li>describe the physical characteristics of a variety of hard and soft woods</li> <li>list and describe common wood faults</li> <li>identify and describe correct methods of handling and storing lumber</li> <li>describe common methods of making a built-up surface using edge joints and reinforce with dowels, biscuits or splines</li> <li>describe the process of squaring solid stock</li> <li>describe the safe operation of hand and power equipment that are used to:               <ul style="list-style-type: none"> <li>joint and surface solid stock</li> <li>cut and shape irregular surfaces</li> <li>scrape and sand flat and irregular surfaces.</li> </ul> </li> </ul> | <p>Point out the importance of storing materials correctly.</p> <p>Stress the importance of squaring stock in the proper sequence.</p> <p>Introduce students to the appropriate hand and power tools.</p> |

**MODULE CON1130: SOLID STOCK CONSTRUCTION** (continued)

| Concept   | Specific Learner Expectations   | Notes   |
|---|---|---|
| <p>Planning and Management</p> <ul style="list-style-type: none"> <li>• Product Design</li> </ul>                   | <p><i>The student should:</i></p> <ul style="list-style-type: none"> <li>• identify common shapes and lines used in product design</li> <li>• select or modify a plan for a free-standing or wall-mounted product that is made from solid or built-up stock</li> <li>• produces a pattern or template from a scale drawing</li> <li>• develop a cutting list and event sequence.</li> </ul> | <p>Explain how straight, circular and curved lines can be used to form pleasing shapes.</p> <p>Projects to consider might include a wall or corner shelf, bench, cutting board or turned product.</p> |
| <p>Implementation</p> <ul style="list-style-type: none"> <li>• Material Processing</li> </ul>                       | <ul style="list-style-type: none"> <li>• use the appropriate tools, materials and processes to: <ul style="list-style-type: none"> <li>– cut and surface stock</li> <li>– joint, glue and clamp</li> <li>– measure and lay out parts</li> <li>– cut and shape parts</li> <li>– assemble and fasten</li> <li>– prepare for finishing</li> <li>– apply a finish.</li> </ul> </li> </ul>       | <p>It is important that students receive safety instruction prior to the use of hand and power tools.</p>   |
| <p>Assessment</p> <ul style="list-style-type: none"> <li>• Quality control</li> <li>• Career Preparation</li> </ul> | <ul style="list-style-type: none"> <li>• complete a visual inspection of the product to see that the joints are tight fitting, and surfaces are free of marks, gouges, burns and voids</li> <li>• maintain a record of completed activities within a portfolio.</li> </ul>  |   |

